

ABSTRACT OF DISCLOSURE

Disclosed is a packet forwarding system having an efficient packet memory management unit and an operation method therefor. The packet forwarding system includes an input unit inputting data in unit of transmission; a packet memory management unit assembling the data into an Internet Protocol(IP) packet and loading the packet into a packet memory, and reading out pointers of an IP packet header and an IP packet trailer connected to the header; a header processing unit deciding a packet classification and a transmission destination by using the read header, and re-transmitting to the packet memory management unit the pointer of the trailer connected to the header; and an output unit dividing the trailer read from the packet memory management unit into data in units of transmission based on the pointers of the header transmitted from the header processing unit and the trailer, and outputting the divided data to a channel.